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A LIVABLE ENVIRONMENT FOR WILDLIFE IS QUALITY ENVIRONMENT FOR MAN

Montana Outdoors

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DEER

Deer are the most numerous and most hunted big game animals on the North American continent. They are the smallest members of the family Cervidae, which also includes elk, caribou, and moose. There are two species of deer in Montana, mule deer, or blacktails as they are sometimes called, and white-tailed deer.

Mule deer inhabit nearly every state west of the Mississippi River with the possible exceptions of Louisiana, Arkansas, and Missouri. The main distinguishing physical characteristics are their large ears which are responsible for the name "mule," and tails which are either black-tipped or black on top. The antlers on the males branch and do not have true main beams.

White-tailed deer are common in nearly every state excepting portions of California, Nevada, Utah and Alaska. Their size range is greater than that of mule deer as they may vary from 400 pounds down to the little 50 pound Key deer of Florida. The tails, which are raised when the deer take flight, look like large white flags and have no black on them. The antlers of the bucks consist of main beams with lesser prongs protruding from them.

Human interests in deer vary, depending upon individual personalities. Some people like to have them around for aesthetic reasons—simply for the pleasure of being able to see them. Most intersted persons also prefer deer for the sport of hunting. Per-

Whitetailed deer buck—Photo by Gerry Atwell

sonal opinions and special interests have no place in the basic issues of proper deer management. These must begin with the inherent characteristics and requirements of the animals themselves.

Deer are herbivores (plant eaters) and their digestive systems are designed to accommodate a diet of plant material. Their primary diet is shrubs and forbs (weedy plants), and it is only during the spring months that grasses make up a high percentage of the food eaten by deer. As might be expected during this time of year, the abundance of new shrub growth and early forbs (weeds) leads to the use of a relatively wide variety of forage. During the summer, deer are widespread, food is abundant and they have few food problems. Weedy plants are eaten most in the summer, but new growth on shrubs may account for a third of the diet. Autumn frosts bring changes in food habits nearly as great as those in spring. Use of grasses may rise if fall rains start new growth. Forbs may make up to 25 per cent of the diet. In general, however, this period marks the transition to a diet of shrubby vegetation.

In contrast with the three comparatively snow - free seasons, winter imposes marked restrictions. Succulent vegetation, except for frost hardy species, is scarce. In many areas, snow covers weedy plants and low shrubs, leaving only taller browse available. Over wide areas, deer are restricted to a very small portion of their total range. Shrubs and trees have to furnish as much as 75 per cent of the deer food. It is only reasonable then that the size of the winter range and the availability of food during the winter is the major limiting factor of deer populations over much of their extensive habitat. It is important to understand at this point that not all plants are deer food. Although there are many different kinds of plants in the diet there are some that deer will not eat. Live and healthy plants are not in themselves indicative of a range that can sustain deer in good condition. These could be plants that are not palatable to deer.

During the summer months, plants are growing, manufacturing food for growth and producing fruit. Much of the food produced is used in the plant's growth. Toward the end of the growing seasons, food is stored in various parts of the plant, including the twigs and buds. Storage of food is essential. As winter approaches and days get shorter and cooler, plant growth slows down and vegetation of all kinds prepares for the winter ahead. Deciduous plants lose their leaves and go into a dormant stage. Spring comes and the stored food in the plant is called upon to start the growing process. Since a deer winer range is subjected to heaviest use during the dormant period of plants, twigs and other portions eaten by animals draws from the plants' storehouses of energy needed for spring growth. The degree of plant use, year after year, determines the ability of these plants to produce food for their own growth and survival as well as food for the animals which depend upon them. Attempts to carry more deer than the food supply will adequately support, weakens or kills plants. When plants die, it follows that with less forage, winter ranges will support fewer deer.

In many parts of their range, deer come into direct competition with other animals. Elk and mountain sheep as well as cows, horses and domestic sheep eat many of the same plants as deer. This limits the amount of food which is available to each mouth. A large number of animals may seem to prosper for a short period on a range, but as food plants are destroyed from overuse, animal numbers are automatically reduced through starvation, disease and poor reproduction, to a number consistent with the deteriorating range.

The condition of the range not only affects the living animals, but it also affects the production of fawns. In comparing good and poor ranges, production of young animals may be two or three times greater and survival of these young can be nearly 100 per cent on ranges where deer have adequate food. An inadequate food supply not only cuts into reproducation, it also drastically limits the fawns' chances for survival.

The number of animals that will properly graze a range each year is termed the "carrying capacity" of the range. A big game population is at carrying capacity when the forage plants are properly used, below carrying capacity when forage plants are not used as much as desirable and above carrying capacity when the forage plants are over-used to the extent that ability to produce forage is reduced.

How is carrying capacity of a winter range determined? Range surveys are conducted each year, after deer and elk have left their winter ranges. The surveys are made to determine the amount of use and condition of forage plants. Plants which are important deer or elk foods are examined. The amount of plant use and the effects of grazing on plant production are compared with previous surveys. This provides a reliable basis for determining if a game population is in balance with its food supply.

It is important we recognize that healthy and prolific deer herds can exist only when they are in balance with their food supplies. This balance is maintained only by removing each year the animals surplus to carrying capacity, preferably by hunting. The major objective in setting big game seasons is to maintain winter herds at the carrying capacity of the winter ranges. However, many deer herds exceed the capacity of their ranges and the season goal is to adjust these herds to carrying capacity.

It should be stressed that at no time is it necessary to know the total number of animals in order to manage them. Since yearly measurements of reproduction rates, hunter harvests, forage use and range condition reflect changes in total population size and condition, it is of no particular value, in most cases, to know the actual number of animals present.

The only management program that can succeed is one based not on the desire for roadside hunting, but on the animals' needs and requirements, and upon the ability of the land to provide adequate food.

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Edited by Vernon Craig

CHIEF PLENTY COUPS MEMORIAL STATE MONUMENT

By Ashley Roberts

Chief Plenty Coups as a young man —warrior, visionary, orator, and friend of the whites.

In the Crazy Mountains of Montana near the junction of the Missouri and Musselshell rivers, an Indian papoose was born. This Indian was to become a great visionary, a great warrior, and chief of the Crow nation. He would be known as Chief Plenty Coups.

During his younger days, Chief Plenty Coups wore 80 feathers on his coup stick. Coups were counted by touching the stick to a living warrior before he was dispatched. He also had vivid dreams of things to come. It was he who saw the buffalo "fall into a hole in the ground" to be replaced by "spotted buffalo," or cattle, and he told his people of it.

Among his other distinctions, Chief Plenty Coups led scouts under General Crook. He represented the American Indians at the burial of the Unknown Soldier in Arlington and he dreamed of brotherhood between the whites and the Crows.

On March 4, 1928, he and his wife, Strikes-the-Iron, executed a Deed of Trust providing that forty acres of his 190-acre farm was to be "set apart as a park and recreation ground for the members of the Crow Tribe of Indians, and white people jointly . . . in trust and perpetuity."

An elaborate ceremony took place at his home on August 8, 1928. Scores of Crows and white men gathered there as General James G. Harbord received the gift of land on behalf of the American people. Since that time the park has been administered by a number of agencies including the Big Horn County Commission, the Billings Kiwanis Club, the Parks Division of the State Highway Department, and finally the Montana Fish and Game Commission through its Recreation and Parks Division.

The Chief Plenty Coups Memorial State Monument is located approximately one mile west of Pryor, on State Highway 416. Further identification would place the monument about 35 miles south and east of Billings on the Crow Indian Reservation. The monument is located in an area containing many historic sites. Within view of the existing Plenty Coups home are the Castle Rocks and the home of the Little Folks, both important to Crow history.

The monument is unusual in many aspects and unique in potential and educational values. The home of Plenty Coups now contains a small museum which displays many of the Chief's momentos including letters, citations, pictures, medicine bundles and many other items of interest to the Crow Indians and whites alike. A short distance from the house is Medicine Spring which is revered by the Indians even today. The burial place of Plenty Coups and his two wives, Kills Together and Strikes-the-Iron, is located to the north of the house. The grave area has been chained off and a marker has been placed at the site. Pryor Creek, a year-round stream, winds through the monument from west to east. It flows through the area which has been designated for picnic use and presents an attractive and pleasant setting.

The Recreation and Parks Division now has a master development plan for the monument. The plan includes road work, parking areas, a museum building, trail development and several other items that will enhance the area and make it an outstanding memorial to Chief Plenty Coups and the Crow Indians. Progress on the development has already started and is intended that a portion of the road work will be completed during the spring of 1969. Other phases of the development work will be accomplished during the next few years as necessary funds are made available.

The Plenty Coups Monument is an interesting area and provides the visitor with information about Chief Plenty Coups and the Crow Indian Tribe. As the development program proceeds, the historic nature of the monument will tie in with the other historic places of interest in the Pryor area and create an outstanding site suitable for picnicking, nature trails, museum interest, and group activities.

The small cabin in the foreground belonged to Chief Plenty Coups. The cabin he later occupied, background, now houses a small museum.

Picture Of A Deer Hunt In The Year 1914 Taken On The Missouri River Bottom. This Land Is Now Covered By Fort Peck Dam. Left to Right. Sam Rugg, Jim Greenan, Horry Yotter, Wm. Jaycox and Dr. Mark Hoyt.

The accompanying photograph appeared on a calendar distributed by Markle's Hardware and Implement of Glasgow. In addition to being a most interesting historical photo it also illustrates a lesson in resource management. What we see is part of the annual crop of wildlife that river flood plains produce. The river bottom above and below Fort Peck Reservoir still produces an excellent crop of whitetail deer, and with proper management will continue to do so. Wildlife is a product of the land. It was so in 1914, it is so today, and it will be so in the future. A segment of Montana's wildlife resources was sacrificed for Fort Peck in the 30's and another segment is being sacrificed at Libby today. We can not continue to make these sacrifices on what remains of the Missouri River or other major Montana rivers and expect to provide the hunting opportunities that Montanans now enjoy. —Photo courtesy of the Markle Brothers, Glasgow

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